



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| | | | | |
|--|-------------|----------------------|---------------------|------------------|
| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/791,269 | 03/03/2004 | Hyun-Jei Chung | 1568.1086 | 8941 |
| 49455 | 7590 | 02/17/2009 | | EXAMINER |
| STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005 | | | HODGE, ROBERT W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1795 | |
| | | | | |
| | | | MAIL DATE | DELIVERY MODE |
| | | | 02/17/2009 | PAPER |
| | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|--------------------------------------|-------------------------------------|
| Office Action Summary | Application No. 10/791,269 | Applicant(s) CHUNG ET AL. |
| | Examiner ROBERT HODGE | Art Unit 1795 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 January 2009.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,2 and 5-19 is/are pending in the application.
 4a) Of the above claim(s) 5-7 and 9-15 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1,2,8 and 16-19 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/6/09 has been entered.

Response to Arguments

Applicant's arguments, see remarks and claim amendment, filed 12/3/08, with respect to the rejection(s) of claim(s) 16-18 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of WO 03/003485.

The remainder of applicant's arguments filed 12/3/08 have been fully considered but they are not persuasive. Applicants state that there is no motivation to relocate the protection circuit board and it would not be obvious to simply relocate the protection circuit board as outlined in the grounds of rejection. This is not found persuasive because applicants have not provided any evidence of unexpected results by relocating the protection circuit board of the instant invention. The protection circuit board of the instant invention is electrically connected to the electrode tabs in a substantially similar

Art Unit: 1795

manner as disclosed in the prior art and therefore the protection circuit board will perform the same regardless of its orientation or location on the battery case.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Therefore as clarified above the prior art rejections will be maintained.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kozu.

Kozu teaches the claimed invention except for locating the protection circuit board disposed between an outer wall of the case and the bent electrode tabs. It would have been obvious to one having ordinary skill in the art at the time the invention was made to relocate the protection circuit board of Kozu to a location disposed between an outer wall of the case and the bent electrode tabs, since it has been held that

rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kozu in view of Applicants' Admitted Prior Art (AAPA).

Kozu as discussed above is incorporated herein.

Kozu does not teach insulating tape between the electrode tabs and the sealing surface, wrapped around portions of the electrode tabs.

As seen in figures 1 and 2 and described in paragraphs [0003]-[0015] of the instant specification, AAPA teaches a pouch type lithium secondary battery 10 comprising a battery unit 11 comprising a positive electrode plate 13, a negative electrode plate 14, a separator 15 disposed between the positive and negative electrode plates, electrode tabs 16 and 17 extending from the respective positive and negative electrode plates, a case 12 having space 12a to accommodate the battery unit, a sealing surface 12b along the periphery of the space, a protection circuit board 100 electrically connected to the electrode tabs, wherein portions of each of the electrode tabs extend outside the case and are bent in an upright position with respect to a plane of the sealing surface, wherein the electrode tabs are bent at a predetermined length from a leading edge of the sealing surface in a thickness direction of the case, and the electrode tabs further comprise insulating tape 18 between the electrode tabs and the sealing surface such that the insulating tape is wrapped around the portions of the electrode tabs bent from a leading edge of the sealing surface.

At the time of the invention it would have been obvious to one having ordinary skill in the art to provide insulating tape between the electrode tabs and the sealing surface that is wrapped around portions of the electrode tabs in Kozu as taught by AAPA in order increase the sealing efficiency of the pouch type lithium battery.

Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,451,474 hereinafter Kozu in view of WO 03/003485 (U.S. Patent No. 6,861,821 is used as the English Equivalent) hereinafter Masumoto.

As seen in figures 1, 2A and 9A, Kozu teaches a pouch type lithium secondary battery 3 comprising positive and negative electrode plates 10 and a separator disposed between the positive and negative electrode plates (column 9, lines 8-12), electrode tabs 12 & 13 extending from the electrode plates, a case 11 having a space to accommodate the battery a sealing surface 11a & 11b along the periphery of the space and a protection circuit board 14 electrically connected to the electrode tabs, wherein portions of each of the electrode tabs extend outside the case and are bent only once in an upright position with respect to a plane of the sealing surface, the electrode tabs are also disposed parallel to an outer wall of the case in an upright position and are perpendicular to a contact surface at which the sealing surface is contacted (column 8, line 52 - column 10, line 26). Furthermore in figure 9A it is quite clear that the electrode tabs 12 (with respective tab 13) is bent at a substantial right angle and an end portion of the tabs contact (i.e. are connected to) leads 30 and 33 which are part of the protection circuit board in an area outside of the case.

Kozu does not teach that the tabs do not extend beyond a thickness of the case forming the pouch-type lithium secondary battery.

As seen in figure 5A, Masumoto teaches a pouch type lithium secondary battery 101 wherein the electrode lead tabs 108 and 109 are connected to a protection circuit board 102 wherein the electrode lead tabs are bent only once at a right angle and do not extend beyond a thickness of the case (column 10, line 15 – 11, line 38).

At the time of the invention it would have been obvious to one having ordinary skill in the art to provide tabs in Kozu that do not extend beyond a thickness of the case forming the pouch-type lithium secondary battery as taught by Masumoto to provide a high capacity pouch type lithium battery that has a smaller and thinner form factor.

Kozu teaches the claimed invention except for tabs that do not extend beyond a thickness of the case forming the pouch-type lithium secondary battery. It would have been an obvious matter of design choice to provide tabs that do not extend beyond a thickness of the case forming the pouch-type lithium secondary battery, since such modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

Art Unit: 1795

from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 8 and 16-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 3-6 of copending Application No. 11/265,131. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claims of the instant application fully encompass the scope of the claims of copending Application No. 11/265,131.

Claims 1, 2, 8 and 16-19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 and 9-10 of copending Application No. 11/280,463. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claims from copending Application No. 11/280,463 fully encompass the scope of the instant claims.

These are provisional obviousness-type double patenting rejections because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT HODGE whose telephone number is (571)272-2097. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert Hodge/
Examiner, Art Unit 1795